

DOCUMENT RESUME

ED 036 832

CG 005 004

TITLE Strand I, Physical Health; Health Status. Health Curriculum Materials for Grades 7, 8, and 9.

INSTITUTION New York State Education Dept., Albany. Bureau of Secondary Curriculum Development.; New York State Univ. System, Albany.

PUB DATE 69

NOTE 40p.

EDRS PRICE MF-\$0.25 HC-\$2.10

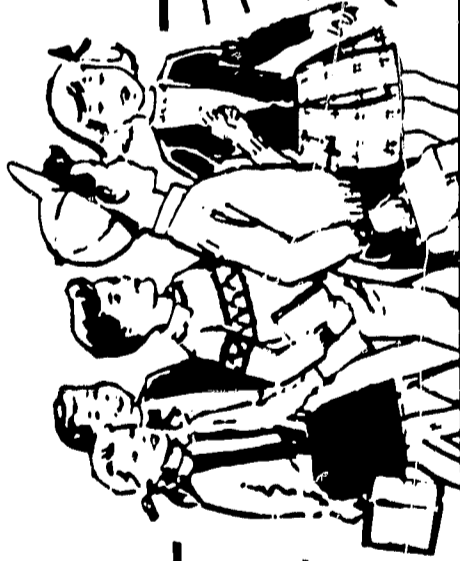
DESCRIPTORS \*Curriculum Planning, Curriculum Research, Education, Health, \*Health Education, \*Health Programs, \*Junior High School Students, \*Physical Health

ABSTRACT

The report deals with junior high curriculum suggestions for teaching physical health. The publication contains three sections: (1) promotion and maintenance of health, (2) measurement and evaluation of health status, and (3) the health of American people. Also discussed is the heart and circulation. Pupil objectives are enumerated and a health overview is included. Extensive related references for both student and teacher are listed. (MC/Author)

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PROTOTYPE  
CURRICULUM MATERIALS  
FOR THE ELEMENTARY  
AND SECONDARY GRADES



# HEALTH

## STRAND I PHYSICAL HEALTH

Health Status for  
Grades 7, 8, and 9

Special edition for  
evaluation and discussion

CG05004

THE UNIVERSITY OF THE STATE OF NEW YORK / THE STATE EDUCATION DEPARTMENT  
BUREAU OF SECONDARY CURRICULUM DEVELOPMENT / ALBANY, NEW YORK 12224 / 1969

FD0 36832

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## HEALTH CURRICULUM MATERIALS

FOR GRADES 7, 8, 9

### STRAND I, PHYSICAL HEALTH

#### HEALTH STATUS

The University of the State of New York/The State Education Department  
Bureau of Secondary Curriculum Development/Albany 12224  
1969

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## FOREWORD

This publication contains curriculum suggestions for teaching Strand I - Physical Health Status for grades 7, 8, and 9.

The publication format of four columns is intended to provide teachers with a basic content outline in the first column; a listing of the major understandings and fundamental concepts which children may achieve, in the second column; and information specifically designed for classroom teachers which should provide them with resource materials, teaching aids, and supplementary information, in the third and fourth columns.

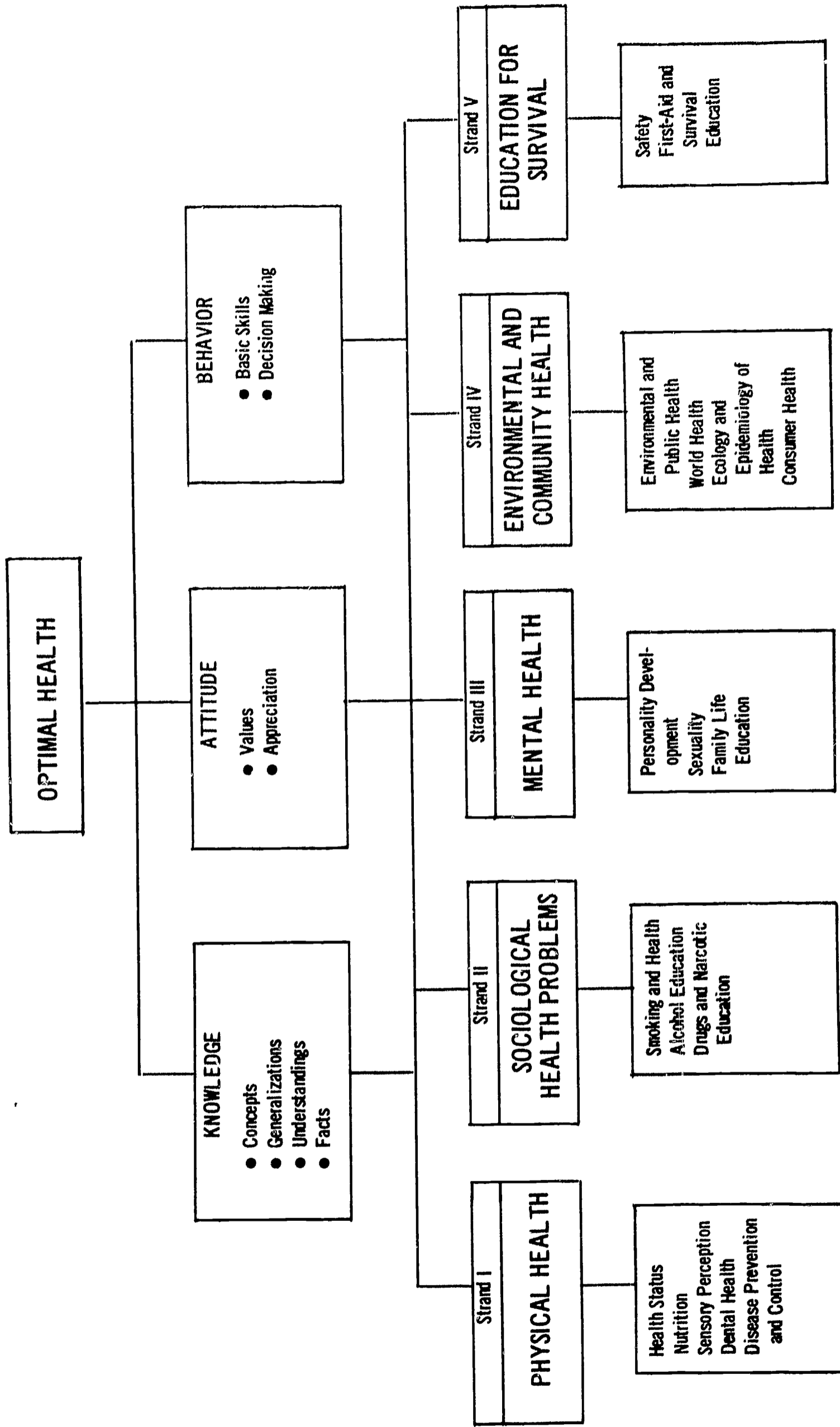
The comprehensive nature of the health program makes it imperative that teachers gain familiarity with all of the strands presently in print. In this way, important teaching-learning experiences may be developed by cross referring from one strand to another.

It is recommended that the health coordinator in each school system review these materials carefully and consult with teachers, administrators, and leaders of interested parent groups in order to determine the most appropriate manner in which to utilize this strand as an integral part of a locally adapted, broad and comprehensive program in health education.

The curriculum materials presented here are in tentative form and are subject to modification in content and sequence. Critiques of the format, content, and sequence are welcomed.

Gordon E. Van Hooft  
*Chief, Bureau of Secondary  
Curriculum Development*

William E. Young  
*Director, Curriculum  
Development Center*



## OVERVIEW

Each year we, as a nation, spend approximately two billion dollars on medical and health-related research. As our population approaches the two hundred million figure, more challenging and complex health problems arise to affect our health status, which, in turn, affects our efficiency, effectiveness, and length of life.

Solutions to these health problems revolve around, and, indeed, are dependent upon (1) education of the American people (especially youth), (2) research into priority health areas, (3) determination of and provision for adequate prevention, treatment, and rehabilitation facilities and services, (4) increasing the number of people who are engaged in the health careers and professions, and (5) technological advancement.

## OUTCOMES

### Pupil Objectives:

The pupil in grades 7, 8, and 9 should:

1. comprehend the concept of "fitness" and appreciate its implications for his own life and that of others.
2. be aware of the nature and significance of factors which affect one's state of health and fitness.
3. accept increasing responsibility for making health appraisal a continuous process.
4. recognize the importance of the detection, treatment, and correction of remediable defects to optimal personal efficiency.

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I. The Promotion and Maintenance of Health	Man's mode of living and level of health are directly or indirectly influenced by the dynamic interaction of complex ecological variables.	How do these affect the health status of individuals? of the nation? <ul style="list-style-type: none"> <li>. urbanization</li> <li>. automation and technology</li> <li>. employee mobility</li> <li>. family size and relationships</li> <li>. educational and occupational opportunities</li> <li>. income and standard of living</li> <li>. changing values</li> </ul>	Human ecology, the study of man's interaction with his total environment, concerns itself with health-producing and disease-producing factors. Man's level of well-being results from the interaction of many factors such as: <ul style="list-style-type: none"> <li>. technology</li> <li>. an adequate standard of living</li> <li>. a safe but challenging environment</li> <li>. public health services</li> <li>. his quality of education</li> <li>. dynamic fitness</li> <li>. psychosomatic balance</li> <li>. good hereditary endowment</li> <li>. a favorable social environment</li> <li>. adequate medical and dental care</li> </ul>

A. Factors which influence health status

The health status of any group depends to a great extent upon how scientifically, economically, and socially advanced the group is.

1. Urbanization

Urbanization has tended to magnify human

What effect does the continuous movement of

There are an increasing number of people moving

OUTLINE OF CONTENT	MAJOR UNDERSTANDINGS AND CONCEPTS	SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES	SUPPLEMENTARY INFORMATION FOR TEACHERS
	<p>problems associated with civil order, housing, transportation, pollution, drug abuse, waste disposal, human relations, and equality of opportunity.</p>	<p>population into urban areas have on the social problems of housing, crime, disease, pollution, etc.?</p>	<p>into metropolitan areas. It is said that in the year 2000 there will be more than 300 million people in and around cities. This brings on problems of:</p> <ul style="list-style-type: none"> <li>. overcrowdedness</li> <li>. lack of space</li> <li>. high cost of satisfactory housing</li> <li>. air and water pollution</li> <li>. frustrations of intracity transportation</li> </ul>
2. Automation and technology	<p>The combination of improved technology and increased population has produced additional health problems in our physical and socio-cultural environment.</p> <p>Employment problems have a drastic impact on social structure, purposes, and goals, and consequently on the health status of the people.</p>	<p>Have students write an essay or have a panel discussion or general class discussion on:</p> <p>How their lives are different from that of their grandparents because of automation and technology.</p> <p>Assign a committee of students to interview a professional person in one or more of the health careers and determine the kinds of technical advances that have occurred to change significantly the nature of his profession.</p> <ul style="list-style-type: none"> <li>. What were the advances?</li> <li>. How did they (or do they) affect the</li> </ul>	<p>Obviously, not all technological change has had a negative effect on man. Nearly all change has both positive and negative features.</p>

OUTLINE OF CONTENT	MAJOR UNDERSTANDINGS AND CONCEPTS	SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES	SUPPLEMENTARY INFORMATION FOR TEACHERS
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3. Changing social values

The social well-being of the continuously increasing population can be achieved by educating people to accept the social responsibilities of living closely together.

profession?

Develop a chart or table showing:

- . Health status in the U.S. in 1900
- . Health status in the U.S. in 1970
- . Contributing factors to these changes
- . What these changes mean in terms of the individual's health status, the nation's health status, and the health status of the world.

A fundamental issue of our time is whether we can develop understanding and wisdom reliable enough to serve as guides in working out the problems of human relations.

4. Income and standard of living

A substandard living may have positive bearing on low level health.

Life in our modern age is far more complex than life was a generation ago.

Discrimination against some minority groups (in addition to racial minorities) is closely related to their incomes and standards of living, and, therefore,

For a discussion about values refer to Strand III, Mental Health

Discuss the relationship between substandard living conditions and the susceptibility to disease and decreased vitality and motivation.

A committee may report on the health status of Negro Americans (and other minority groups) and suggest how deprivation, inequality, and prejudice have prevented these Americans

Studies indicate between 2 and 2.5 million Negroes - 16 to 20 per cent of the total Negro population of all central cities - live in squalor and deprivation in inner-city neighborhoods.

In 1966 about 11.9 per cent of the nation's whites and 40.6 per cent of its non-whites were below the "poverty level" defined by the Social Security Administration (then

## OUTLINE OF CONTENT

### MAJOR UNDERSTANDINGS AND CONCEPTS

places serious limitations on the general level of health they are able to enjoy.

### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

from enjoying a level of health equal to that of most white citizens.

- . What are the changes in man's pattern of living in the last quarter century that are influencing his need for planned physical activity?
- . What is the effect of these changes on the individual?
- . What has brought about these changes?
- . What are the indications for the next generation?

Show and discuss an appropriate film related to public health problems.

Discuss such questions as:

- . How do improved living conditions improve man's life?
- . What effect does poor environment have on the health status of individuals and groups.
- . How can we identify our health problems?
- . What kinds of solutions need to be considered?

### SUPPLEMENTARY INFORMATION FOR TEACHERS

\$3,335 per year for an urban family of four). The level will probably increase as living costs spiral upward. Over 40 per cent of the non-whites below the poverty level live in the central cities.

Some factors which have caused changes in our pattern of living are:

- . increased mechanization
- . a shorter work week
- . tendency of many people to participate in spectator sports and passive recreation
- . physical inactivity which is encouraged by use of cars, buses, escalators, elevators, drive-in banks, etc.

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B. A concept of fitness

Fitness encompasses the quality of one's physical, emotional, social, and intellectual functioning.

Have students choose a person they admire and list the characteristics this person has that makes him fit for his tasks.

Use this list as a basic criteria for "fitness comparison" as the class discusses fitness.

1. Body dynamics

Dynamic fitness is the optimal state of health that can be maintained by each individual.

Body dynamics involves the body's ability to meet its immediate needs and develop readiness to meet future needs.

2. Interdependence of fitness and body dynamics

Physical activity is an essential component of body dynamics.

Dynamic fitness is action capacity. No one part of the body functions separately. Dynamic fitness is more than being physically fit. It embraces intellectual, social, and emotional factors which are mutually interdependent.

The health of every part of the body is dependent upon the well-being of the entire body.

Total fitness implies a high level of efficiency and effectiveness of the entire person.

The human body responds to activity by becoming more efficient in that activity.

Some questions for consideration:

- . What is a perfectly fit person?
  - . Is this desirable in our society?
  - . Does my example (above) fit these standards?
  - . What are his strong health features?
- Weak health features?

List the components of fitness in terms of social-emotional, intellectual, and physical characteristics.

Have students show, by example, how one may be efficient and fit in one area but not necessarily in another.

The value of physical activity to physical health is that it:

- . preserves the positive physical characteristics of youth.
- . helps to prevent

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		<p>Following these discussions have class write their definitions of "health," "fitness," "illness," etc.</p>	<p>obesity and degenerative disease associated with overweight.</p> <ul style="list-style-type: none"> <li>stimulates the general physiology of the circulatory, respiratory, and excretory systems.</li> <li>maintains one's ability to meet emergencies more effectively.</li> </ul>

Cardiovascular sufficiency is the ability of the heart to meet the demands of the body for a constant supply of blood. C.V. sufficiency is increased through physical activity.

See Appendix A

See Strand I - Nutrition

### 3. Adequate nutrition

The nutritional status of an individual has direct bearing on his fitness and sense of well-being.

Have class investigate and discuss each of the following:

- Boys are better nourished than girls in this country.
- Vitamin D and iron are the nutrients most lacking in diets (between ages 4 and

Recent studies have shown results of malnutrition during wartime conditions such as:

- lack of energy, endurance, and vitality
- physical activity curtailed sharply
- mental stability

OUTLINE OF CONTENT	MAJOR UNDERSTANDINGS AND CONCEPTS	SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES	SUPPLEMENTARY INFORMATION FOR TEACHERS
4. Fatigue, rest, and sleep	<p>One's growth and health status depend greatly on adequate rest and sleep.</p> <p>When activity is prolonged, waste products accumulate in the blood stream, causing fatigue and a</p>	<p>20).</p> <ul style="list-style-type: none"> <li>As young people enter their teen years, girls begin to skip breakfast more and so do some boys.</li> <li>Girls snack more than boys. (Not necessarily detrimental)</li> <li>Inactivity rather than large food intake appears to be the primary factor in overweight. Studies show adolescents, more than any other group, are eating diets lower in protein.</li> <li>Overweight causes added stress on body organs thus increasing the likelihood of malfunction, disease, and lowered resistance.</li> </ul>	<p>reduced</p> <ul style="list-style-type: none"> <li>misbehavior and restlessness increased sharply</li> <li>mental achievement was distinctly impaired (reduced memory and listlessness, but basic intelligence was not altered).</li> </ul> <p>Energy foods are primarily carbohydrates, fats, and oils. The energy stored in foods is counted in Calories.</p>
		<p>Have students:</p> <ul style="list-style-type: none"> <li>Make a plan for a day that balances activity, rest, sleep.</li> <li>Discuss the reasons why sleep and rest are needed and essential to continuing good health.</li> </ul>	<p>It is impossible to make a general statement to accurately indicate how much sleep any individual should have. This requirement varies from one person to another.</p>

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decreased ability to function efficiently.

Rest and sleep are needed to enable the body to repair itself, to remove fatigue products, and to enable muscles to relax and replenish their store of fuel.

The amount of work and play that can be accomplished depends on the state of one's health.

Fatigue is the natural result of activity and may be classified as acute or chronic.

Muscular and organic recovery depends on rest, replenished fuel supply, and removal of waste.

Divide class into two groups. Have one group discuss the causes and effects of fatigue. Have the second group discuss the types of fatigue and their dangers.

Fatigue which is relieved by rest or a change of activity is acute fatigue.

Chronic fatigue may continue day after day. A night's sleep does not relieve it. Emotional conflicts can contribute to chronic fatigue. Danger signs are sleeplessness, poor disposition, a decrease in efficiency; and loss of appetite, weight, and enthusiasm.

Fatigue results from the accumulated end-products of metabolism in the cells.

As the body uses up blood sugar, it releases waste such as lactic acid. After a certain amount of lactic acid accumulates, the body works less efficiently.

Most of this waste is changed back into blood sugar to be used again. This is accomplished

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during rest and sleep.

List and discuss the factors in our modern society that indicate a need for recreation.

Recreation refers to any activity that is a change from one's work, or regular routine.

5. Leisure time activities

Discuss factors affecting wise choices of leisure time activities such as peer group decisions, parental choices, mis- chief, increasing money needs, desire for status, mobility of youth, de- creasing moral restraints.

Recreation is a funda- mental human need essential to the well- being and fitness of everyone.

Discuss destructive lei- sure-time activities versus wholesome use of leisure hours. As a mental health problem - what are the causes of delinquency? What are the possible solutions? Is boredom a social disease? Why?

These may include screening, complete physical examinations, specific laboratory tests, and casual observations.

There are many tests available which will provide us with some knowledge of our level of health.

II. Measurement and Evaluation of Health Status

A thorough examination can be accomplished in less than one hour. Properly planned and

Invite a physician to class to discuss why a physical examination in- cludes such things as:

An annual physical examination provides the doctor with an opportunity to check

A. Health examination

## OUTLINE OF CONTENT

### MAJOR UNDERSTANDINGS AND CONCEPTS

growth and development  
and to answer questions.

Each individual should  
understand that,  
ultimately, he is  
responsible for his own  
health status.

#### B. Pulse rate tests

The recovery time of an  
individual's pulse rate  
(heart beat) is one  
measure of physical  
fitness.

See Section I-B for  
other criteria of  
physical fitness.

#### III. The Health of the American People

Health status is  
greatly influenced  
by:

- . the quality,  
quantity, and  
availability of  
health facilities
- . the health knowledge  
of people and,
- . the availability of  
competent health  
services

### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

- . checks on physical  
development
- . examination of heart  
and lungs
- . testing of eyes, ears,  
nose, and throat
- . blood tests
- . urinalysis
- . immunization

Discuss how the pulse  
rate test evaluates  
cardiovascular function  
and physiological fitness.

See Appendix A

### SUPPLEMENTARY INFORMATION FOR TEACHERS

thoroughly administered,  
the health examination  
may be the best indicator  
of health status and total  
fitness.

New techniques and  
technology in the health  
sciences make it in-  
creasingly apparent that  
the individual is faced  
with many situations  
beyond his control. For  
example, the environmental  
health problems, such as  
pollutants and food  
quality, require group  
action.

Traditionally the health  
of a nation's people has  
been measured by the

Read and discuss, "The  
Health of the American  
People," in the June  
1966 issue of the  
Scientific American to  
see a unique way of  
measuring the health of  
our country's people.

Questions for discussion:  
. Is our well-being be-  
coming dependent on  
community facilities?  
. How effective are  
community programs  
to an individual's

OUTLINE OF CONTENT	MAJOR UNDERSTANDINGS AND CONCEPTS	SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES	SUPPLEMENTARY INFORMATION FOR TEACHERS
A. Factors which influence population	Significant population increases give rise to physical and emotional problems that affect health status.	level of health?	rate at which they die. A decreasing death rate has been related to increasing health.  There is renewed interest in the positive elements of good health rather than merely the length of life.
		Review the population trends in 1900 with those of the present. Include: <ul style="list-style-type: none"> <li>. factors affecting populations</li> <li>. significant increases and decreases and their causes</li> <li>. problems created and the kinds of solutions being considered</li> </ul>	Some of these would include: <ul style="list-style-type: none"> <li>. Physical factors related to maintenance of health, such as:  <ul style="list-style-type: none"> <li>. food supply, demands, and needs</li> <li>. water and sewage facilities</li> <li>. recreational provisions</li> </ul> </li> <li>. Psychological factors related to:  <ul style="list-style-type: none"> <li>. overcrowding</li> <li>. family security</li> <li>. personal aspirations</li> <li>. identity</li> </ul> </li> </ul>
		Invite to class a city planner to discuss how new urban or suburban areas are planned. What factors must be considered to protect the health status of the people involved?	
		How do these developments affect other, related populations?	
1. Birth rate	The increasing birth rate since World War II has resulted in a higher	Discuss the implications included in: <ul style="list-style-type: none"> <li>. high birth rates</li> </ul>	In 1900, more than one-third of the population was comprised of children

## OUTLINE OF CONTENT

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proportion of children in relation to the total population. This, in turn, has resulted in increased need for health services for ages 0-19.

Changes in the composition of the population alter the nature and scope of the health problems affecting man.

### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

- . low birth rates

#### Questions:

- . Why may a sudden increase in birth rate create public health problems? How may this affect the health status of a given area?
- . What kinds of problems are most likely to occur as a result of low birth rates? High birth rates?
- . What is the present birth rate as compared with 20 years ago? 50 years ago?
- . What are some causes for these changes?

On the chalkboard, rank the top ten nations with the lowest infant mortality rates. Your pupils may be surprised that the United States does not have the lowest rate. Have the class discuss why this condition exists.

### SUPPLEMENTARY INFORMATION FOR TEACHERS

under 15 years of age; in 1940, it dropped to approximately one-fourth; but in 1966, it had grown again to approximately one-third.

In 1900, 18% of the population was 45 years of age and over; 4% were 65 and over. In 1950, 28% of the population was 45 years of age and over; 8% were 65 and over. In 1966, 29% of the population was 45 years of age and over; approximately 10% were 65 and over.

In 1966, about 3,629,000 babies were born in the United States and 84,800 died in their first year of life. These figures translate into a rate of 23.4 infant deaths per 1,000 live births, which is an all time low for the nation.

Of the more definitive causes of infant death, respiratory disorders and congenital malformation were among the chief causes of mortality. Almost half of the infant deaths were attributed to

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### MAJOR UNDERSTANDINGS AND CONCEPTS

#### 2. Death rate

The decline in infant mortality has resulted in an increase in average life expectancy and thus, an increase in the chronic and degenerative diseases associated with an "older" population.

#### B. Present health status of the American people

During a fifty-year period (1900-1949), the incidence of infectious diseases showed a 90 percent decrease.

The degenerative, chronic, and constitutional diseases have taken a prominent role in affecting the health status of the United States.

### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Through library research, some students may wish to investigate and report how vital statistics are:

- . gathered
- . organized into specific categories
- . interpreted
- . used for new programs

Compare the vital statistics of New York State with those of other selected states. Large differences may be explained quite logically.

Of the ten leading causes of mortality in the United States, how many are caused by communicable diseases and how many are caused by chronic or degenerative diseases?

### SUPPLEMENTARY INFORMATION FOR TEACHERS

the generalized or less defined conditions - post-natal asphyxia and atelectasis, immaturity, unqualified and ill-defined diseases.

Fetal deaths (stillbirths) - those for which the period of gestation is 20 weeks (or 5 months)

Neonatal mortality rate - deaths of infants under 28 days old, exclusive of fetal deaths

Infant mortality - deaths of infants under 1 year old, exclusive of fetal deaths

Factors which have contributed to a decrease in infectious diseases were:

- . improvement in the standard of living
- . improved environmental sanitation
- . expansion and improvement of the immunization program
- . improved medical care
- . increase in health care facilities and services

# OUTLINE OF CONTENT

## MAJOR UNDERSTANDINGS AND CONCEPTS

Advances in medical science have improved the health of all age groups and increased the average life expectancy.

Some of our current health problems (e.g., air pollution, disposal of radioactive wastes, water contamination) are a result of technological "advances" made by our society.

Increased recognition of the community's responsibility for the health of its residents has resulted in improved public health programs.

## SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Have students plan, organize, and create an hypothetical society with optimum health status, efficiency, and effectiveness. They might consider and include in their creation:

- . local populations
- . health facilities and personnel, as well as ideal locations
- . emigration - immigration
- . other factors as discussed during the class experiences

This may be done before the class experiences this strand. After teaching the area, the class may want to improve or recreate their society.

## SUPPLEMENTARY INFORMATION FOR TEACHERS

Death rate from all infectious diseases combined in a 50-year period:  
1900: 676 per 100,000 population, decrease to  
1949: 79 per 100,000 population

Factors contributing to improved maternal and child care:

- . improved prenatal and postnatal care of mothers
- . more extensive use of hospitals for deliveries
- . growth of well-baby and pediatric clinics
- . increased use of health personnel, e.g., public health nurses
- . improved standards of living
- . better housing
- . improved methods of disseminating information

See Strand IV, Public and World Health. The teacher may wish to use some of the experiences and content related to community action in improving or maintaining the health of people.

### Heart and Circulation

The heart is a pump. Its function is to constantly receive venous blood from all the tissues in the body and pump it to the lungs for oxygenation. In turn, when the lungs return the newly oxygenated blood to the heart, it pumps this fortified and oxygenated blood back to all the tissues in the body and this is an ongoing vital cycle from birth to death. In addition, the lung action removes CO<sub>2</sub> from (venous) blood and eliminates this waste product through exhalation of air in the breathing process.

Being a muscle, the heart becomes stronger and larger as it is called upon to do more work. A larger heart is able to fill itself with more blood while a stronger heart has the ability to force blood throughout the body with greater ease. A stronger and larger heart does not have to contract as often as a smaller or less efficient heart. Because it expends less energy, a large, strong heart is claimed to be more efficient.

Physical activity will not damage a normal heart. Fatigue in other parts of the body will stop strenuous exercise before there is injury to the heart.

The ability of the heart and lungs to work hard and long during strenuous activity is dependent on the efficiency of the body systems that contribute to the nourishment of the body cells, that is, the respiratory and circulatory systems.

The cells of the body must be supplied with a continuous supply of oxygen and nutrients. When the body is more active, the supply of nutrients and oxygen is increased and the return of blood to the heart is stepped up, at the same time there is a greater exchange of oxygen and carbon dioxide between lungs and the bloodstream.

Cardiovascular test results are useful screening measures of physiological fitness. They are similar to tests of muscular strength and endurance in that they rise with improved individual health status and fall as organic strains and defects appear. All these tests require utmost care in administration in order to secure reliable results.

### The Michigan Pulse Rate Test

The test is comprised of:

- . counting normal standing pulse
- . running in place at the rate of three steps per second for a period of 15 seconds
- . counting standing pulse rate beginning  $\frac{1}{2}$ , 1, 2, and 3 minutes after cessation of exercise; and
- . rating according to scale based on recovery time.

<u>Time To Recover</u> <u>Normal</u>	<u>Grade</u>	<u>Degree of</u> <u>Fitness</u>	<u>Physical Habits</u> <u>or Types</u>
$\frac{1}{2}$ minute	A	Fine	Athletic
1 minute	B	Good	Active
2 minutes	C	Fair	Moderately Active
3 minutes	D	Poor	Sedentary
Pulse slower after run	E	Very Poor	Invalid

## HEALTH STATUS

### Multimedia Resources (7-9)

#### TEACHER REFERENCES

These supplementary aids have not been evaluated. The list is appended for teacher convenience only and teachers in the field are requested to critically evaluate the materials and to forward their comments to the Curriculum Development Center.

#### Explanatory Note:

The multimedia materials in this listing include materials from many different curriculum strands. The nature of Health Status and its relationship to all curriculum strands make such a listing both desirable and necessary.

#### Books

- Agnew, Derek. Undercover agent - narcotics. Macfadden Books. 1964.
- Ahman, J. S. Evaluating pupil growth. Boston: Allyn & Bacon Company. 1963.
- American Academy of Pediatrics. Report of the committee on the control of communicable diseases. Evanston, Illinois: American Academy of Pediatrics. 1966.
- American Association for Health, Physical Education, and Recreation. Reprint - Drug abuse: Escape to nowhere - a guide for educators. Smith, Kline, and French Laboratories, Philadelphia. Washington, D.C.: The Association. 1967.
- \_\_\_\_\_. The growing years - adolescence. 1962 yearbook. Washington, D.C.: The Association.
- \_\_\_\_\_. National conference on Fitness of Elementary School Age Children. Children and fitness: a program for elementary schools. Washington, D.C.: The Association. 1960.

Books (continued)

- Anderson, C. L. Community health. St. Louis: C. V. Mosby Company. 1969.
- \_\_\_\_\_ School health practice. St. Louis: C. V. Mosby Company. 1968.
- \_\_\_\_\_ & Langton. Health principles and practices. St. Louis: C. V. Mosby Company. 1964.
- Anderson, Linnea and Browe, John H. Nutrition and family health services. Philadelphia: W. B. Saunders Company. 1960.
- Asimov, Isaac. The human body, its structure and operation. (Chapter 4). Boston: Houghton Mifflin Company. 1963.
- Athletic Institute. Exercise and fitness. Chicago: The Institute. 1960.
- Baller, W. R. & Charles, D. C. The psychology of human growth and development. New York: Holt, Rinehart and Winston. 1961.
- Barber, Bernard. Drugs and society. Russell Sage Foundation. 1967.
- Bauer, W. W. & Hein, F. V. Exercise and health. Chicago: Bureau of Education of American Medical Association. 1958.
- \_\_\_\_\_ & Schaller, W. E. Your health today. 2nd ed. New York: Harper & Row. 1965.
- Bier, W. C. Problems in addiction: alcohol and drug addiction. Fordham University Press. 1961.
- Biological Science Curriculum Study. Biological science. (Chapter 6). Harcourt Brace and World, Inc. 1963.
- Block, M. A. Alcoholism, its facets and phases. John Day. 1965.
- Blomquist, David. Daddy is home. Holt, Rinehart and Winston. 1963.
- Blum, Richard H. and Associates. Utopiates: The use and users of LSD - 25. New York: Atherton Press. 1964.
- Bogert, Jean L. Nutrition and physical fitness. Saunders & Company. 1966.
- Boyer, Donald. For youth to know. Illinois: Laidlaw Brothers. 1966.

Books (continued)

The Bulletin of the National Association of Secondary School Principals. Curriculum change in health education. Number 326. Washington, D.C.: National Association of Secondary School Principals. March 1968.

Burn, Joshua H. Drugs, medicine, and man. Scribner. 1962.

Burton, Benjamin T. The Heinz handbook of nutrition. 2nd ed. New York: McGraw-Hill Book Company. 1965.

Byrd, O. E. Health. 3rd ed. Philadelphia: W. G. Saunders Company. 1961.

Carson, Gerald. One for a man, two for a horse. Garden City: Doubleday & Company. 1961.

Carson, Rachel. Silent spring. Fawcett Publications, Inc. 1964.

Cassidy, Rosalind. Counseling in the physical education program. (Chapter 4). New York: Appleton Crofts, Inc. 1959.

Clarke, Harrison H. Application of measurement to health and physical education. Englewood Cliffs, New Jersey: Prentice Hall, Inc. 1967.

\_\_\_\_\_ The dry years: prohibition and social change in Washington. 1965.

\_\_\_\_\_ and Haar, F. B. Health and physical education for the elementary classroom teacher. Englewood Cliffs, New Jersey: Prentice Hall, Inc. 1964.

Clarkson, Margaret and William B. Susie's babies. Michigan: Eerdmans Publishing Company. 1960.

Cohen, Sidney. The beyond within: the LSD story. New York: Atheneum. 1964.

\_\_\_\_\_ The drug dilemma. McGraw-Hill Series. 1969.

Conant, James B. The education of American teachers. New York: McGraw Hill Book Company. 1961.

Cooper, LeBarber, Mitchell, H., and Rynbergen, J. Nutrition in health and disease. 14th ed. Philadelphia: J. B. Lippincott Company. 1963.

Cushman, W. P. and Bennett, B. L. Selected health problems (adolescent concerns). Columbus, Ohio: Charles E. Merrill Publishing Company. 1967.

Books (continued)

- Department of Health, Education, and Welfare. Public health service annual report. Vital Statistics of the United States.
- De Schweinitz, Karl. Growing up. New York: Macmillan Company. 1965.
- Deutsch, Ronald. Nuts among the berries. Ballantine Books. 1961.
- Diehl, Harold. Tobacco and your health. McGraw-Hill Series. 1969.
- Dorian, Margerite. The alligator's toothache. Lothrop, Lee, and Shepard. 1962.
- Dublin, Louis I. Factbook on man from birth to death. 2nd ed. New York: Macmillan Company. 1965.
- Dubos, Rene. Mirage of health. Doubleday and Company, Inc. 1961.
- Edgren, H. D. and Gruber, J. J. Teachers handbook of indoor and outdoor games. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1963.
- Eisman, Louis and Janzen, Chaplen. Modern health. New York: Holt, Rinehart and Winston, Inc. 1967.
- \_\_\_\_\_ and Tanzer. Biology and human progress. Philadelphia: W. B. Saunders. 1964.
- Fait, Hollis F. Adapted physical education. Philadelphia: W. B. Saunders. 1960.
- Fehr, Howard F. This is my family. New York: Holt, Rinehart and Winston. 1963.
- Fletcher, C. M. and Others. Common sense about smoking. Baltimore. Penguin Books. 1963.
- Follett, R. J. Your wonderful body. Chicago: Follett Publishing Company. 1961.
- Fowler, Mary J. and Fisher, M. Story of great Americans. The Fiedleer Company. 1960.
- Freud, Sigmund. The basic writings of Sigmund Freud. Translated by A. A. Brill. New York: Modern Library. 1938.
- Garn, Gernard. A visit to the dentist. New York: Grosset and Dunlap. 1959.
- Gellman, I. P. The sober alcoholic: an organizational analysis of A.A. New Haven: College and University Press. 1964.

Books (continued)

- Goldstein, Richard. 1 & 7: Drugs on campus. Walker and Company. 1966.
- Goodman, Henry A. (ed.) World conference on smoking and health: a summary of the proceedings. National Interagency Council on Smoking and Health. October 1968.
- Green, Carla. I want to be a dentist. Chicago: Children's Press. 1960.
- Grout, Ruth E. Health teaching in schools. Philadelphia: W. B. Saunders Company. 1968.
- Gruenberg, Benjamin and Didonie, M. The wonderful story of you. New York: Garden City Books. 1960.
- Haag, Jesse H. School health program. New York: Holt, Rinehart and Winston, Inc. 1965.
- Hammond, E. Guyler. Smoking and relation to the death rates of one million men and women. Monograph 19. Bethesda: National Cancer Institute. 1966.
- Harris, Richard. The real voice. New York: Macmillan Company. 1964.
- Hickerson, Nathaniel. Education for alienation. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1967.
- Hogan, Inez. We are a family. New York: E. P. Dutton and Company. 1955.
- Holbrook, Stewart H. The golden age of quackery. Macmillan Company. 1959.
- Hunt, S. E. Games and sports the world around. New York: Ronald Press. 1964.
- Irwin, L. W., Carnacchia, H. J., and Staton, W. M. Health in elementary schools. St. Louis: C. O. Mosky Company. 1966.
- \_\_\_\_\_ Growing every day. Chicago: Lyons and Carnahan. 1965.
- James, G. and Rosenthal, T. Tobacco and health. Springfield, Illinois: Thomas. 1963.
- Jellinek, E. M. The disease concept of alcoholism. New Haven: Hillhouse Press. 1960.
- Johns, E., Sutton, W., and Webster L. Health for effective living. 4th ed. New York: McGraw-Hill Book Company. 1961.

Books (continued)

- Johns, E., Sutton, W., and Webster, L. Health for effective living. New York: McGraw-Hill Book Company. 1966.
- Johnson, W. E. (ed.) The science and medicine of exercise and sports. New York: Harper and Row Publishers. 1960.
- Johnson, W. R., Terry, D. E., Gaines, M. J., and Humphrey, J. H. Health concepts. New York: Ronald Press Company. 1962.
- Jubloier, Ruth. Jack's dental checkup. Chicago: Melnont Publishers. 1961
- Kallett, A. and Schlunk, F. 100,000,000 guinea pigs. The Vanguard Press. 1933.
- Kaplan, Louis. Foundations of human behavior. New York: Harper and Row. 1965.
- Karpovitch, Peter V. Physiology of muscular activity. 5th ed. Philadelphia: W. B. Saunders Company. 1959.
- Kessler, E. L. I have twenty teeth - do you? New York: Dodd, Mead and Company. 1962.
- Kilander, Frederick H. School health education. New York: Macmillan. 1968.
- Larson, P. S. and Silvette, H. Experimental and clinical studies: Supplement 1. Baltimore: Williams and Wilkens Company. 1968.
- LaSalle, D. Health instruction for today's schools. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1963.
- Lauber, Patricia. Your body and how it works. New York: Random House. 1962.
- Lee, H. W. How dry we are, prohibition revisited. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1963.
- Lien, Arnold J. Measurement and evaluation of learning: a handbook for teachers. Iowa: Wm. C. Brown Company. 1967.
- Lockhard, A. (ed.) Readings in health education. Compiled by J. Humphrey, D. Terry, and H. Slusher. Wm. C. Brown Company. 1964.

Books (continued)

- Lolli, Giorgio. Social drinking - how to enjoy drinking without being hurt by it. Cleveland World Publishing. 1960.
- Lord, Beman. Our new baby's ABC. New York: Henry Z. Walck, Inc. 1964.
- Louria, Donald B. The drug scene. New York: McGraw Hill. 1968.
- \_\_\_\_\_ Nightmare drugs. New York: McGraw Hill. 1966.
- Lucia, S. P. A history of wine as therapy. Lippincott. 1963.
- Mann, Marty. New primer on alcoholism. Rinehart. 1958.
- Martin, Ethel A. Robert's nutrition work with children. Chicago: University of Chicago Press. 1964.
- Maslow, Abraham H. Toward a psychology of being. New Jersey: S. Van Nostrand Company. 1962.
- Masters, R. E. L. and Houston, Jean. The varieties of psychedelic experience. Holt, Rinehart and Winston. 1966.
- Maurer, David and Vogel, V. Narcotics and narcotic addiction. 2nd ed.
- McBalir, William. Experiments in physiology. Palo Alto, California: The Natural Press. Workbook. 1965.
- McCarthy, R. G. Teenagers and alcohol - a handbook for the educator. Publications Division, Yale Center of Alcohol Studies. 1956.
- McClosky, Robert. One morning in Maine. Viking Press. 1959.
- McWilliams, Margaret. Nutrition for the growing years. New York: John Wiley and Sons, Inc. 1966.
- Means, Richard K. A history of health education in the United States. Philadelphia: Lea Febiger Company. 1962.
- Menninger, Karl A. The human mind. New York: Alfred A. Knopf. 1937.
- Meyers, C. R. and Blesh, T. E. Measurement in physical education. New York: The Ronald Press Company. 1962.

Books (continued)

- Morehouse, L. E. and Miller, A. T. Physiology of exercise. St. Louis: C. V. Mosby Company. 1959.
- National Education Association, American Medical Association. Health appraisal of school children. 4th ed. Washington, D.C.: NEA. 1968.
- \_\_\_\_\_. American Medical Association Joint Committee. School health services. 2nd ed. Chicago: American Medical Association. 1964.
- National Education Association of Directors of Health, Physical Education, and Recreation. Developing written program guides. 1964.
- Oberteuffer, D. School health education. 3rd ed. New York: Harper and Row. 1960.
- \_\_\_\_\_. and Byer, Mary K. School health education. New York: Harper and Row. 1966.
- Ochsner, Alton (MD). Smoking and health. New York: Messner. 1959.
- Osborne, B. M., Means, R. K., Smolensky, J., and Sawrey, J. M. Foundations of health science. Boston: Allyn and Bacon. 1968.
- Otto, J. H., Julian, G. J., and Tether, J.E. Modern health. New York: Holt, Rinehart and Winston. 1967.
- Packard, Vance. The hidden persuaders. New York: Pocket Books. 1957.
- Penn, R. B. Mommies are for loving. New York: G. P. Putnam's Sons. 1962.
- Pittman, D. J. and Snyder, C. R. Society, culture, and drinking patterns. Wiley. 1962.
- Pollmer, E. Alcoholic personalities. Exposition Press. 1965.
- Pounds, R. R. and Byrnes, J. K. The school in American society. New York: Macmillan Company. 1967.
- Prescott, R. The control of pain. The Thomas Y. Crowell Company. 1964.
- President's advisory commission on narcotic and drug abuse - final report - November 1963. U.S. Government Printing Office.

Books (continued)

- President's Council on Physical Fitness. Fitness of American youth, 1st, 2nd, and 3rd reports, 1957, 1958, 1959. Youth physical fitness, Parts I and II. 1961. Elements in recreation. 1962. Washington, D.C.: U.S. Government Printing Office.
- President's Council on Youth Fitness. Youth physical fitness. Washington, D.C.: U.S. Government Printing Office. 1961.
- Preston, George H. The substance of mental health. New York: Holt, Rinehart and Winston. 1963.
- Report of the national advisory commission on civil disorders. Bantam Books, Inc. New York: The New York Times Company. 1968.
- Robinson, V. Victory over pain. New York: Henry Schuman. 1946.
- Rogers, Edward S. Human ecology and health. New York: Macmillan. 1965.
- Royal College of Physicians. Smoking and health. New York: Pitman Publishing Company. 1962.
- Schertzer, B. and Peters, J. J. Guidance techniques for individual appraisal and development. Times Company. 1968.
- Schiffers, J. Healthier living. 2nd ed. John Wiley and Sons. 1965.
- School Health Education Study. Health education. St. Paul: 3M Education Press. 1967.
- Schwartz, William F. Teachers handbook on venereal disease education. Washington: National Education Association. 1965.
- Selye, Hans. The stress of life. New York: McGraw-Hill Book Company. 1956.
- Showers, Paul. How many teeth? New York: Thomas Y. Crowell Company. 1962.
- Simon, H. Microbes and men. National Science Teachers Association. Vistas of Science Books. 1963.
- Sinacore, John S. Health - a quality of life. New York: The Macmillan Company. 1968.
- Sloch, A. W. Aging: Some social and biological aspects. New York: American Association for Advancement of Science. 1960.

Books (continued)

- Smith, E. T. Exploring biology. Harcourt, Brace, and World.
- Smith, Ralph. Health hucksters. New York: Thomas Y. Crowell Company. 1960.
- Smoking and health. Report of the Advisory Committee to the Surgeon General of the Public Health Service. Washington, D.C.: U.S. Department of Health, Education, and Welfare. 1964.
- Solomon, David (ed.) The marihuana papers. Indianapolis: Bobbs-Merrill Company, Inc. 1966.
- Stare, Frederick J. Eating for good health. New York: Doubleday and Company, Inc. 1964.
- Stuart, Frances. Classroom activities. Washington, D.C.: American Association of Health, Physical Education, and Recreation. 1964.
- Talalay, P. (ed.) Drugs in our society. The Johns Hopkins Press.
- Task Force for Smoking and Health. Report to the surgeon general. Washington, D.C.: U.S. Department of Health, Education, and Welfare. 1968.
- Tennant, R. B. The American cigarette industry. New Haven: Yale University Press. 1950.
- Todd, Frances. Teaching about alcohol. McGraw Hill. 1964.
- Tuck, Miriam L. and Hear, Franklin B. Health. New York: Harper and Row. 1969.
- Turner, C. C., Seelery, Morley, and Smith Louise. School health and health education. St. Louis: C. V. Mosby Company. 1969.
- United States Bureau of the Census. Statistical abstract of the United States. 88 edition. Washington, D.C. 1967.
- United States Department of Health, Education, and Welfare. Equality of educational opportunity. Washington, D.C.: U.S. Government Printing Office. 1966.
- Wheatly, George H. and Hallock, Grace T. Health observation of school children. New York: McGraw-Hill. 1965.
- Whitney, E. D. The lonely sickness. Boston: Beacon Press. 1965.

### Books (continued)

- Williams, Roger J. Biochemical individuality. New York: John Wiley and Sons. 1957.
- Willgoose, Carl E. Evaluation in health education. Philadelphia: Saunders. 1961.
- \_\_\_\_\_ Health education in the elementary school. Philadelphia: Saunders. 1969.
- Wilson, E., Fisher, K. H., and Fuqua, M. E. Principles of nutrition. New York: John Wiley and Sons, Inc. 1965.
- Wyden, Peter. The overweight society. A Pocket Cardinal Edition. 1966.
- Yale School of Alcohol Studies. Alcohol science and society - 29 lectures. 1945.
- Zim, H. S. How things grow. New York: William Morrow Company. 1960.

### Texts

- Bauer, W. W., Montgomery, E. R., and Pounds, E. T. Health for all series. Fair Lawn, New Jersey: Scott, Foresman and Company. 1965.
- Beck, Robert H., Cook, Walter W., Kearney, Nolan C. Curriculum in the modern elementary school. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1960.
- Byrd, Oliver E., Neilson, Elizabeth A., and Moore, Virginia D. The Laidlaw health series. River Forest, Illinois: Laidlaw Brothers. 1966.
- Kansas City, Missouri, Public Schools. Health education in the elementary school. June 1963.
- Lyons and Carnahan. Finding your way. Chicago: Lyons and Carnahan. 1965.
- Shuster, Albert H. and Ploghoft, Milton E. The emerging elementary curriculum - methods and procedures. Columbus, Ohio: Charles E. Merrill Publishing Company. 1963.

### Periodicals

- Bugg, Ralph. "Mending hearts with exercise." Today's Health. October 1967.

Periodicals (continued)

- Cohen, Wolbur J. "Meeting the health needs of the nation." Public health reports. U.S. Department of Health, Education, and Welfare. Vol. 82. July 1967.
- Dalis, Gus T. "No more crash programs!" Education Age. Vol. 5, No. 3. Jan.-Feb. 1969. pp. 11-13, 39. Education Age Report. "In-service training and health education." Education Age. Vol. 5, No. 3. Jan.-Feb. 1969. pp. 8-10.
- Fossett, Barbara. "Health education in the elementary school: a humanistic curriculum." The National Elementary Principal. Vol. XLVIII, No. 2. November 1968. pp. 61-64.
- Galtin. "Exercise helps you live longer." Science Digest. Vol. 40. 1959. p. 30.
- Greenleaf, Ted. "A look at the new look in health education." Education Age. Vol. 5, No. 3. Jan.-Feb. 1969. pp. 6-7.
- Hamburg, Marian V. "When and where health education." Education Age. Vol. 4, No. 5. May-June 1969. pp. 40-41.
- Hansford, Byron W. "Health education: it's place in the curriculum." Education Age. Vol. 4, No. 3. Jan.-Feb. 1968. pp. 2-3
- Harrelson, Orvis A. "Today's children - today's health education." The National Elementary Principal. Vol. XLVIII, No. 2. November 1968. pp. 6-10.
- Jouvet, Michael E. "The states of sleep." Scientific American. February 1967.
- Jozwiak, Robert L. "The principal and health education." The National Elementary Principal. Vol. XLVIII, No. 2. November 1968. pp. 11-13.
- Linder, Forrest E. "The health of the American people." Scientific American. June 1966.
- Means, Richard K. "Health education: what, why and how." Journal of School Health. Vol. XXXIX, No. 3. March 1969. pp. 209-217.
- Merrill, Laura. "Keeping children healthy - continuous health education." SNT Reporter. Winter 1968. pp. 10-13.
- Napier, John. "The antiquity of human walking." Scientific American. April 1967.

### Periodicals (continued)

Olson, Arlene. "A teacher looks at health education." Education Age. Vol. 4, No. 3. Jan.-Feb. 1969. pp. 6-8.

Stewart, Colston R. (Jr.). "Creative teaching and health education." Education Age. Vol. 5, No. 1. Sept.-Oct. 1968. pp. 38-39.

U.S. Department of Health, Education, and Welfare. "School health program." Public Health Service. August 1966.

Wilson, Victor J. "Inhibition in the central nervous system." Scientific American. May 1966.

### AUDIOVISUAL AIDS

To gain further information about these aids, please consult your local A/V director or supervisor or school librarian.

### Films

Exercise and health. 11 minutes, color. Demonstrates how various activities help adolescents overcome particular difficulties. It points out the value of physical health.

The thread of life. Bell System Telephone Co. 60 minutes, sound. The science of genetics, genes. DNA. (advanced)

### STUDENT REFERENCES

### Books

American Association for Health, Physical Education, and Recreation. Exercise and fitness. Series #3. Washington, D.C.: The Association. 1958.

Asimov, Isaac. The human body, its structure and operation. Boston: Houghton Mifflin Co. 1963. Chapter 4. (advanced high school)

Athletic Institute. Exercise and fitness. Chicago: The Institute. 1960.

- Bauer, W. W. and Hein, F. V. Exercise and health. Chicago: Bureau of Education, American Medical Association. 1958.
- Bogert, L. Jean. Nutrition and physical fitness. 7th ed. Philadelphia: W. B. Saunders Co. 1960.
- Eisman, Louis and Tanzer, Charles. Biology and human progress. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1964.
- Fait, Hollis F. Adapted physical education. Philadelphia: W. B. Saunders Co. 1960.
- Hein, F. V. and Farnsworth, D. L. Living. 3rd ed. New York: Scott, Foresman and Company.
- Karpovitch, Peter V. Physiology of muscular activity. 5th ed. Philadelphia: W. B. Saunders Co. 1959.
- Leverton, Ruth M. Food becomes you. Ames, Iowa: Iowa State University Press. 1960.
- Lilly, Luella J. An overview of body mechanics: a student handbook. California: Peek Publications. 1966. (advanced high school)
- Means, Richard K. A history of health education in the United States. Philadelphia: Lea Febiger. 1962.
- McBlair, William. Experiments in physiology. Palo Alto, California: The National Press. Workbook. 1965. (advanced)
- Metropolitan Life Insurance Company. Pounds and inches. Booklet.
- National Dairy Council. A girl and her figure and you. A personal record guide for teen-age girls by L. Ruth Leverton. Booklet. 36 pp. A boy and his physique by L. Walter Gregg. Booklet. 34 pp.
- New York State Education Department, Bureau of Physical Education and Recreation. New York State physical fitness test manual for boys and girls, grades 4-12. Albany: University of the State of New York, State Education Department. 1966.
- Nourse, Alan E. and Editor of Life. The body. Life Science Library. New York: Time, Inc. 1964.
- Otto, J. H., Julian, C. J., and Tether, J. E. Modern health. New York: Holt, Rinehart and Winston, Inc. 1967.
- Pfeiffer, John and Editor of Life. The cell. Life Science Library. New York: Time, Inc. 1964.

President's Council on Fitness and Youth. Booklets. Washington, D.C.: United States Government Printing Office.

Adult physical fitness - a program for men and women. 34 pp.  
Fitness of American youth. 1st, 2nd, 3rd reports. 1957, 1958, 1959.  
Physical fitness elements in recreation. 1962.  
Youth fitness. Parts I and II. 1961.

School Health Education Study. Summary report. Washington, D.C.: National Education Association. 1964.

---

Health education. Minnesota: 3M Press. 1967.

Science Research Associates. Life adjustment booklets.

Enjoying leisure time  
Growing up socially  
You and your health  
You're maturing now

Wessell, Janet A. Fitness for the modern teen-ager. New York: Ronald Press Company. 1963.

White, Patricia. Body contouring, fitness, and poise. California: Peek Publications. 1966.

#### VOLUNTARY AND PROFESSIONAL AGENCIES\*

American Association for Health, Physical Education, and Recreation - NEA, Washington, D.C.

American Cancer Society

American Heart Association

American Medical Association - Department of Health Education, 535 North Dearborn Street, Chicago, Illinois

Department of Health, Education, and Welfare - Office of Education Publications, Washington, D.C.

National Dairy Council - Chicago, Illinois

National Recreation Association - 8 West 8th Street, New York, New York

National Tuberculosis and Respiratory Disease Association

New York State Department of Health - Holland Avenue, Albany, New York

New York State Education Department, Bureau of School Health Education - University of the State of New York, Albany, New York

New York State Education Department, Bureau of Physical Education and Recreation - University of the State of New York, Albany, New York

New York State Narcotic Addiction Control Commission, Albany, New York

President's Council on Physical Fitness - United States Government Printing Office, Washington, D.C.

United Cerebral Palsy Association

World Health Organization - United Nations, New York, New York

\* Will send information on current publications upon request.